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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/28/2003

John Schrag

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EXAMINER

AUGUSTINE, NICHOLAS

ART UNIT

PAPER NUMBER

2179

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/627,974	Applicant(s) SCHRAG ET AL.	
	Examiner NICHOLAS AUGUSTINE	Art Unit 2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/10/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- A. This action is in response to the following communications: Amendment filed: 04/10/2008. This action is made **Final**.
- B. Claims 1-16 remain pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-8 and 14-15 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-8 and 14-15 are directed to a program per se as they are directed to a graphical user interface (GUI) element (claims 1-8 and 15) or GUI (claim 14), which as described in the specification is mere software; a computer program (software) per se is not included in one of the statutory categories of invention and from the current practices of the Office a claim directly claiming to a computer program per se is believed to be non-statutory, more information about this matter is covered in the Annex IV of the Interim Guidelines for Subject matter Eligibility. After careful reconsideration of the current amendments it is determined that the latest amendment to the claims does not make the claims statutory because it can still be determined that the claims are directed towards software, in such that there is no tangible display (monitor) device and that there is a possibility that the displaying is related to the rendering (“and displayed in association with a...”) of an object wherein rendering (displayed to) is mere software. An amended to claim language to claim that

indicates that the claim is directed towards a tangible element and not software would yield to be statutory. Please refer to claim 16, as it is statutory.

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komerska et al. ("Haptic Task Constraints for 3D Interaction"), herein referred to as "Komersaka", in view of Anderson, Hakan (US 6,801,217), herein referred to as "Anderson".

As for independent claim 1, Komersaka teaches a graphical user interface element, comprising: a three-dimensional orientation indicator widget positioned in associated a three-dimensional scene and visually indicating an orientation of the scene (figure 3), and said indicator comprising:

view direction controls (pitch and yaw) each indicating a direction of a corresponding view into the three-dimensional scene (figure 3; wherein depicted show what direction the screen orientation will be manipulated when the user clicks on the pitch or yaw view controls) and causing a display view orientation of the three-dimensional scene to change to the corresponding view when selected and where the view controls rotate corresponding to the change in the display view orientation (figure 3 and 4; wherein depicted is the actual rotation of the widget). In anticipation of amendment and to advance prosecution Komerska does not specifically mention more than (yaw, pitch and scale view controls), however in the same field of endeavor Anderson teaches 6 degrees of view controls (top, bottom and four sides; wherein the user can manipulate a replication of a 3D model which is displayed in the scene with the actual 3D model to use as a navigation tool to orient around the object by clicking with the mouse (col.3, lines 59-97; col.4, lines 1-41 and col.5, lines 40-67; col.6, lines 1-59). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Anderson's six degrees of view controls of widget into Komerska three degrees of view control widget for screen orientation, this is true because both Andersons method and Komerska were well known principles of viewing 3D data which one of ordinary skill in

Art Unit: 2179

the art would combine to have predictable results of a widget having more than two view controls.

As for dependent claim 2, Komerska teaches the graphical user interface element as recited in claim 1, wherein an object in the scene is centered and sized to fit the display view when a scene change occurs responsive to selection of one of the controls (figure 3 and 5).

As for dependent claim 3, Komerska teaches the graphical user interface element as recited in claim 1, wherein the indicator is part of the three-dimensional scene, always positioned at a predetermined position in the display view and always substantially a same size in the display view (figure 3).

As for dependent claim 4, Komerska teaches the graphical user interface element as recited in claim 1, wherein the element comprises:

a central core control associated with a perspective view of the scene; and axial controls peripherally positioned with respect to the core control, aligned with the axial dimensions of the scene and associated with corresponding front, back, top, bottom, left side and right side views (note the analysis of claim 1 above in view of Anderson's widget design).

As for dependent claim 5, Komerska teaches the graphical user interface element is

Art Unit: 2179

recited in claim 4, wherein the front direction control is different from the other controls (page 4, second column; also note the analysis of claim 1 above in view of Anderson's widget design).

As for dependent claim 6, Komerska teaches the graphical user interface element as recited in claim 4, wherein the axial controls are each shaped to point at the core control indicating the view direction of the axial control. (figure 3, page 4, second column; also note the analysis of claim 1 above in view of Anderson's widget design)

As for dependent claim 7, Komerska teaches the graphical user interface element as recited in claim 4, further comprising a non-axial control peripherally positioned with respect to the core control and indicating a direction of a corresponding view into the three-dimensional scene and causing a display view of three-dimensional scene to change to the corresponding view when selected (figure 3, page 4, second column; also note the analysis of claim 1 above in view of Anderson's widget design).

As for dependent claim 8, Komerska teaches the graphical user interface element as recited in claim 7, wherein the non-axial controls are specified by a user (figure 3, page 4, second column and page 5, first column).

As for dependent claim 9, Komerska teaches a process, comprising:
determining whether a view direction indicating control of a three-dimensional

Art Unit: 2179

orientation indicator positioned in a display view of a three-dimensional scene has been activated; and orienting the display view orientation to the view direction of the control when the control is activated and wherein the view control rotates corresponding to the change in the display view orientation (note the analysis of claim 1 above).

As for dependent claim 10, Komerska teaches a process as recited in claim 9, wherein the indicator is in the three dimensional scene and the process further comprises: positioning the indicator in the scene to place the indicator in a predetermined position in the display view; and changing the size of the indicator in the scene to fix the indicator at a predetermined size in the display view (figure 3,4 and 5; page 4, second column).

As for dependent claim 11, Komerska teaches a process as recited in claim 9, further comprising: centering a scene object in the display view; and fitting the scene object to the display view (figure 3,4 and 5; page 4, second column).

As for independent claim 12, Komerska teaches a system, comprising:
display; an input device used to make selections on the display; and a computer coupled to the mouse and the display, displaying a three-dimensional scene on the display in a display view, the scene comprising a three-dimensional orientation indicator positioned in and indicating the orientation of the scene, the orientation indicator comprising view controls indicating a view direction and the computer

changing the display view orientation to the view direction associated with a control selected by the mouse and where the view controls rotate corresponding to the change in the display view orientation (note the analysis of claim 1 above).

As for independent claim 13, Komerska teaches a computer readable storage controlling a computer by a process stored thereon determining whether a view direction indicating control of a three-dimensional orientation indicator positioned in a display view of a three-dimensional scene has been activated and orienting the display view orientation to the view direction of the control when the control is activated and where the view control rotates corresponding to the change in the display view orientation (page 1, first column; wherein discussed is the system being implemented on a computer system; note the analysis of claim 1 above).

As for independent claim 14, Komerska teaches a graphical user interface having three-dimensional directional indicators positioned in and indicating an orientation of a three-dimensional scene and that orient the view to the direction indicated when activated by a user and where the indicator rotates corresponding to the change in the view (note the analysis of claim 1 above).

Art Unit: 2179

As for dependent claim 15 and 16, Komerska teaches a graphical user interface element and corresponding system, comprising: a display; said display displaying a three-dimensional orientation indicator positioned in a three-dimensional scene, visually indicating an orientation of the scene, part of the three-dimensional scene, always positioned at a predetermined position in the display view and always substantially a same size in the display view, and said indicator comprising: view direction controls each indicating a direction of a corresponding view into the three-dimensional scene and causing a display view orientation of three-dimensional scene to change to the corresponding view when selected and where the view controls rotate corresponding to the change in the display view orientation, the view direction controls comprising: a central core control associated with a perspective view of the scene and causing a display view of three-dimensional scene to change to the corresponding perspective view when selected; axial controls peripherally positioned with respect to the core control, aligned with the axial dimensions of the scene, associated with corresponding front, back, top, bottom, left side and right side views, shaped to point at the core control indicating the view direction of the axial control with the front view direction control being a different color than the other controls and the axial controls being labeled with axial labels comprising part of the controls; and a non-axial control peripherally positioned with respect to the core control by a user and indicating a direction of a corresponding view into the three-dimensional scene and causing a display view of three-dimensional scene to change to the corresponding non-axial view when selected, and wherein an object in the scene is centered and sized to

Art Unit: 2179

fit the display view when a scene change occurs responsive to selection of one of the controls (note the analysis of claim 1 above; wherein the combination of Anderson into Komerska teaches that of a widget with various indicators which when actuated upon changes the orientation in such that is provided that the indicators are provided around a three dimensional representation of the object being edited by the user such as to give a clear indication to the user to where the orientation is to be changed in the viewport.

(Note:) It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

Response to Arguments

Applicant's arguments filed 04/10/2008 have been fully considered but they are not persuasive.

A1. Applicant argues that Komerska does not constitute prior art.

R1. Examiner does not agree, please note the below factual evidence that provides a date of when the material of Komerska was publicly made available.

“Proceedings of the 11th Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems (HAPTICS’03)”

Document 1: From IEEE Xplore 2.0:

Title:

Haptic Interfaces for Virtual Environment and Teleoperator Systems, 2003. HAPTICS 2003. Proceedings. 11th Symposium on

Art Unit: 2179

Link:

<http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=26696&isYear=2003&count=60&page=0&ResultStart=0>

Document 2: From HAPTICS 2003

Title:

11th Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems

Date: 22-23 March 2003

Stated in this outline is the index of public material, in which the reference Komerska is presented with corresponding page numbers indicated on the reference.

A2. Applicant argues that Komerska nor Anderson do not teach "The view does not change discretely or jump to a new position".

R2. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "The view does not change discretely or jump to a new position") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Note: there is no step or time dependent action being placed upon the user to dictate that only one single click of the mouse with not other user interaction is taken place, in such the above References as agreed by the Applicant in the remarks, page 6, Komerska teaches the user being able to click the control to rotate the screen.

A3. Applicant argues that the widget does not rotate.

R3. Examiner does not agree, please refer to figure 3 and 4, which clearly depicts the widget being rotated and displayed accordingly; wherein the user can cause the widget to be rotated and the three-dimensional scene will be rotated as well to depict a new scene orientation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Augustine whose telephone number is 571-270-1056. The examiner can normally be reached on Monday - Friday: 7:30- 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas Augustine/
Examiner
Art Unit 2179
July 18, 2008

/Ba Huynh/
Primary Examiner, Art Unit 2179